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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133				
			EXAMINER TRAN, HENRY N	
			ART UNIT 2674	PAPER NUMBER

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/910,131	<b>Applicant(s)</b> ZAVRACKY ET AL.	
	<b>Examiner</b> Henry N. Tran	<b>Art Unit</b> 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13,17,19-21,23-31,34-44 and 47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13,17,19-21,23-31,34-44 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Amendment received August 29, 2005 has been fully considered; and this Office action is in response thereto. The amendments to the claims have been entered. Claims 1-13, 17, 19-21, 23-31, 34-44 and 47 are pending in this application.

### ***Response to Arguments***

2. Applicant's arguments, see the Remarks, pages 8-9 of the Amendment filed 8/29/05 have been fully considered but they are not persuasive because:

Applicants argued that the prior art, the Fergason patent, which lacks a teaching of including the computer control (5) within the display housing, and a teaching of a video transducer; and the Yamauchi patent, which does not claim the video processing aspect of the disclosure and providing an enabling disclosure, and Yamauchi is not properly compatible with Fergason.

Examiner respectfully disagrees because of:

(i) First, in response to applicants' argument that the Fergason reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the computer control (5) within the display housing, and a video transducer) are not recited in the rejected claims, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims, See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993);

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(ii) Second, Yamauchi patent is relied upon for the teachings of the well known claimed communications equipment elements: “a wireless transceiver” and “a camera” as specifically recited in items 3 and 10 of the prior Office action mailed 3/24/05, but not the video processing circuit, which does not appear in the claimed invention; and

(iii) Lastly, the Fergason reference and the Yamauchi reference are both directed to a portable communication device for mounting communication equipment including a liquid crystal display and a light source for displaying video image; accordingly, they are analogous art and compatible for combination.

3. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new grounds of rejection as follows.

#### *Drawings*

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the: “portable device housing for mounting communications equipment” (claims 1 and 20), “a transceiver housing” and “a display module housing” (claims 10 and 29), “a telephone housing”, “a light source within the telephone housing”, “a liquid crystal display within the telephone housing” (claim 34), “a camera mounted to the telephone housing” (claim 40) must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: “portable device housing”, “a wireless transceiver” (claim 1), and “a portable telephone” (claim 3), “a display module housing” and “a transceiver housing” (claim 10), “a transducer housing” (claim 17).

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitation "the transducer housing" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 6-12, 20, 21, 25-31 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (U.S. Patent No. 5,717,422) in view of Yamauchi et al (U.S. Patent No. 5,276,471, hereinafter referred to as "Yamauchi").

10. Re claim 1, Ferguson teaches a portable communications device comprising (col. 3, lines 33-35) comprising: a light source (320) having a plurality of light emitting diode (LED) devices (Fig. 3, 2r, 2b, 2g, and col. 5, lines 13-20); a liquid crystal display panel (3) optically coupled to the light source (col. 5, lines 33-35) for rendering a viewable image (col. 6, lines 16-20) from the image data (col. 3, line 66 to col. 4, lines 12); a lens (4, col. 3, lines 29-39) optically coupled to the display panel (Fig. 3); and a sequential color circuit (5) coupled to the display panel and the light source such that the light source generates a plurality of colors in sequence (col. 3, lines 40-65). However, Ferguson is lacking: a portable device housing for mounting communications equipment, and a wireless transceiver.

Yamauchi (Figs. 1 and 5) teaches a portable communications device, which is a head mounted device similar to that of Ferguson, comprising: a portable device housing (2 and 3, and col. 1,

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lines) for mounting communications equipment (40) and a wireless transceiver (52 and 53) that receives audio and image data (Fig. 4, and col. 3, line 50 to col. 4, line 26).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the multimedia head mounted display (col. 3, lines 33-35) as taught by Ferguson to include a housing and a wireless transceiver as taught by Yamauchi for the benefit of making a compact portable head mounted display system, which is conveniently and effectively used in remote areas using wireless connection.

11. Re claim 2, Ferguson, as applied to claim 1 above, further teaches the light source comprises red, green, and blue LEDs (2r, 2g, 2b, col. 5, lines 13-32).

12. Re claim 6, Ferguson, as applied to claim 1 above, further teaches the lens magnifies the image on the display panel (col. 3, lines 32-35 where lenses that focus images can be a magnifier).

13. Re claim 7, Ferguson, as applied to claim 1 above, further teaches the display panel comprises an active matrix circuit (col. 6, line 56).

14. Re claim 8, Yamauchi, as applied to claim 1 above, Fig. 1, further teaches a camera (60) mounted to the housing (col. 4, lines 25-26).

15. Re claim 9, Ferguson (Fig. 3), as applied to claim 1 above, further teaches the light source comprises a plurality of red LEDs (both 2r LEDs shown), a plurality of green LEDs (both 2g LEDs shown), and a plurality of blue LEDs (both 2b LEDs shown).

16. Re claim 10, Ferguson, as applied to claim 1 above, Fig. 3, further teaches the display panel (3) and the sequential color circuit (5) are positioned in a display module housing (61) and

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Yamauchi, Fig. 4, teaches a display module housing (21, 24, 48, 54, 55) that is attached to a transceiver (52 and 53) housing (headset shown in Fig. 5).

17. Re claim 11, Ferguson, as applied to claim 1 above, further teaches a head-mountable mechanism (col. 3, lines 33-35).

18. Re claim 12, Fig. 3, further teaches the display panel (3) and the sequential color circuit (5) are positioned in a display module housing (61) and Yamauchi, Figs. 4 and 5, teaches a control processor (54) within the housing (2 and 3) and coupled to a color circuit (48).

19. Re claim 20, which shares the same limitations as those in claim 1, and therefore the rationale for rejection will be the same.

20. Re claim 21, which shares the same limitations as those in claim 2, and therefore the rationale for rejection will be the same.

21. Re claim 25, which shares the same limitations as those in claim 6, and therefore the rationale for rejection will be the same.

22. Re claim 26, which shares the same limitations as those in claim 7, and therefore the rationale for rejection will be the same.

23. Re claim 27, which shares the same limitations as those in claim 8, and therefore the rationale for rejection will be the same.

24. Re claim 28, which shares the same limitations as those in claim 9, and therefore the rationale for rejection will be the same.

25. Re claim 29, which shares the same limitations as those in claim 10, and therefore the rationale for rejection will be the same.



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26. Re claim 30, which shares the same limitations as those in claim 11, and therefore the rationale for rejection will be the same.

27. Re claim 31, which shares the same limitations as those in claim 12, and therefore the rationale for rejection will be the same.

28. Re claim 47, which comprises claim elements and limitations recited in claim 1, rephrased to define in the form of means plus functions that are included in claim 1, and further claims: “means for generating a plurality of image subframe for each color image frame, each subframe representing a different color”. Ferguson further teaches that means, which is the control system 5, for generating a plurality of image subframe for each color image frame, each subframe representing a different color (col. 5, lines 33-59, where, each color illumination constitutes a subframe of image data and when the sub frames for each color are put together a user sees a multicolor image).

29. Claims 3, 17, 34, 35 and 38-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (U.S. Patent No. 5,717,422) in view of Yamauchi et al (U.S. Patent No. 5,276,471), hereinafter “Ferguson-Yamauchi”, as applied to claims 1, 2, 6-12, 20, 21, 25-31 and 47 above, and further in view of Wells et al (U.S. Patent No. 5,048,077, hereinafter referred to as “Wells”).

30. Re claim 3, Ferguson in view of Yamauchi, as applied to claim 1 above, is lacking a portable telephone, however, well teaches a phone handset (1) which incorporates a miniature visual display in a headset (Fig. 2).

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Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the head mounted display as taught by Ferguson in view of Yamauchi to incorporate telephone features as taught by Wells for the benefits of providing a compact portable communications system capable of transmitting and receiving both voice and data signals (col. 4, lines 31-38), and which is conveniently and effectively used.

31. Re claim 17, Yamauchi, as applied to claim 16, further teaches (Figs. 1 and 3) a display module housing for housing a light source (21), lens (22, 23), a liquid crystal matrix display panel (24) is pivotably mounted to the housing (2) using a hinge 4, wherein the matrix display panel is enclosed by the display module housing (2).

32. Re claim 34, which shares the same limitations as those in claims 1, 3 and 10, and therefore the rationale for rejection will be the same.

33. Re claim 35, which shares the same limitations as those in claim 2, and therefore the rationale for rejection will be the same.

34. Re claim 38, which shares the same limitations as those in claim 6, and therefore the rationale for rejection will be the same.

35. Re claim 39, which shares the same limitations as those in claim 7, and therefore the rationale for rejection will be the same.

36. Re claim 40, which shares the same limitations as those in claim 8, and therefore the rationale for rejection will be the same.

37. Re claim 41, which shares the same limitations as those in claim 9, and therefore the rationale for rejection will be the same.

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38. Re claim 42, which shares the same limitations as those in claim 10, and therefore the rationale for rejection will be the same.

39. Re claim 43, which shares the same limitations as those in claim 11, and therefore the rationale for rejection will be the same.

40. Re claim 44, which shares the same limitations as those in claim 12, and therefore the rationale for rejection will be the same.

41. Claims 4, 5, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fergason (U.S. Patent No. 5,717,422) in view of Yamauchi et al (U.S. Patent No. 5,276,471) as applied to claims 1 and 20 above, and further in view of Sharples (U.S. Patent No. 4,959,642).

42. Re claims 4 and 5, Fergason in view of Yamauchi is lacking a reflector around the LEDs and a diffuser disposed between the LED devices and the display panel. However, Shapes (Fig. 3) teaches a reflector (42) around the LEDs and a diffuser (44) disposed between the LED devices (D1 and D2) and the display panel (LCD 24) (col. 5, lines 53-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the reflector and the diffuser as taught by Shapes in the Fergason-Yamauchi device because it would provide an improved portable communications system capable of display high quality images having uniformly distributing light from the LEDs light source to the display (col. 5, lines 57-58).

43. Re claim 19, Fergason in view of Yamauchi do not explicitly describe a backlight, but do provide LEDs as an illumination light source (Fergason, 2r, 2g, 2b). However, Sharples teaches the illumination light source is also an LED used to backlight an LCD (col. 3, lines 25-29).

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Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to illuminate the LCD as taught by Ferguson-Yamauchi using a backlight as taught by Sharples for the benefit of uniformly distributing light from LEDs to the display (col. 5, lines 57-58)

44. Re claims 23 and 24, which share the same limitations as those in claims 4 and 5, and therefore the rationale for rejection will be the same.

45. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (U.S. Patent No. 5,717,422) in view of Yamauchi et al (U.S. Patent No. 5,276,471) as applied to claims 1, 20 and 47 above, and further in view of Stewart et al (U.S. Patent No. 5,337,068, hereinafter referred as "Stewart").

Ferguson in view of Yamauchi teach a display system that has a control circuit disposed within a housing (2,3) to provide a field sequential display system that sequentially displays each color (Ferguson, col. 3, lines 57-65), but is lacking a memory within the housing coupled to the control processor. Stewart teaches a field sequential display system to sequentially drive the display with successive red, green, and blue video in accordance with a sequential flashing of red, green, and blue backlights. Stewart further teaches a memory (col. 5, line 24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the control circuit for generating colors in sequence as taught by Ferguson in view of Yamauchi by adding a memory as taught by Stewart for the benefit of holding a frame of video information consisting of color information to be displayed (col. 5, lines 20-33).

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46. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (U.S. Patent No. 5,717,422) in view of Yamauchi et al (U.S. Patent No. 5,276,471) and of Wells et al (U.S. Patent No. 5,048,077) as applied to claim 34 above, and further in view of Sharples (U.S. Patent No. 4,959,642).

47. Claims 36 and 37 share the same limitations as those in claims 5 and 6, and therefore the rationale for rejection will be the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the LED light source as taught by Ferguson in view of Yamauchi and wells with a reflector and diffuser as taught by Sharples for the benefit of uniformly distributing light from LEDs to the display (col. 5, lines 57-58).

#### ***Conclusion***

48. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

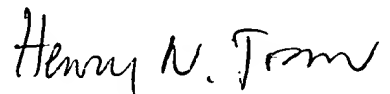
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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49. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry N. Tran whose telephone number is 571-272-7760. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Henry N Tran  
Primary Examiner  
Art Unit 2674

1/3/06